

Toolbox for analysing consumers, target groups, challenges and conditions

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1 Customer Needs Assessment

General description of the region

The region of Public Transport Ems-Jade (VEJ) is located in Lower Saxony and borders in the South to the State of North Rhine-Westphalia, in the West to the Netherlands and to the East to the region of Oldenburg/Osnabrück. In the North, the North Sea forms a natural border. The region of VEJ has an area of 6.739 km² with about 960.000 inhabitants, that corresponds to a population density of approximately 142 inhabitants per square kilometer.



Preconditions in Public Transport in the region

The local public passenger transport (public transport) has to play an increasingly important role in dealing with the socially necessary as well as the individually desired mobility operations for ecological, economic and structural reasons. In addition to local work, regional cooperation in the organization and planning of public transport is necessary. To ensure providing the public transport attractiveness also beyond the boundaries of the district, and to promote cooperation in the interests of the region, the transport region Nahverkehr Ems-Jade was founded in the spring of 1997, headquartered in Jever. The VEJ includes the districts of Aurich, Emsland, Friesland, Leer and Wittmund such as the district-free cities of Emden and Wilhelmshaven.

The transport region Ems-Jade is crossed by bus services in a comprehensive liner network. At present, 42 companies have concessions for bus lines. Services in public transport are performed by them and other companies on their behalf. The transport network comprises 349 lines, mostly on land transport in the region, with about 4,000 stations and more than 30 million passengers carried per year. A large part of the lines, especially outside of the High-order center Wilhelmshaven and the Middle-order centers is characterized by integrated into regular school transport. Students as a whole represent the power user group in public transport in the region. There are urban public traffics in Lingen, Meppen, Norderney, Papenburg, Wilhelmshaven, Aurich, Emden and Leer. In addition to ensure the good quality of the school transport the VEJ has set itself an increase in so-called Everyman PT aims. Here it is important to bring the wishes for improvements in public transport with the financial resources in line.



For the development of the pursued IT services, e.g. mobile applications, with information about public transport available in one place, it is necessary to know the conditions of each single region within ITRACT. For public transport it is inevitably to regard the needs and requests of customers and target groups. In the following chapters there will be analyzed the customer needs in general, especially in rural areas and with regard of the situation in the VEJ. Also the regional context has to be analyzed. In order to delimit a useful region for developing and testing the applications the actions will take place in the city of Wilhelmshaven and the administrative district Friesland. Nevertheless the analysis accommodates the whole Region of the VEJ.



Approach used to perform customer needs assessment

To perform the customer needs assessment at first sight there are used several studies and specialist literature¹ for general customer needs towards public transport in rural areas in general.

Additional the experiences and the knowledge of public transport the VEJ got in the region because of their duties and responsibilities for years is used. Beyond that, various interviews with experts, which have different points of view, confirm the identified user needs for the region. These experts are from a passenger association, bus trainers for pupils and information, a representative from the bus network Ems-Jade, a associate for mobility guidance and an advisor for elderly people.

The combination of these sources of knowledge gives a good image of the user needs in the region, because every of the interviewed persons has to deal with the customer needs every day. The studies that are used are representative and approved by research.

Identified user needs for the region of VEJ

The use of public traffic is sustainable helping in issues as climate protection and saving resources and is a relief of traffic for the streets. However the most people are using their own cars because in most instances the offer of public transport with its relations is insufficient and also not aligned with the customers.

The principal points for developing an attractive offer in public transport are:

Short description of user need	Detailed description of user need
Public transport has to be plain and simple	The use of public transport has to be common, so that everyone has to learn it once in a lifetime, in almost the same manner as getting a driving license. Ticket machines, schedules, signs, and other tools must be easy to understand for everyone. A manageable rate system with attractive offers removes a key barrier to the use of public transport. The passenger must rely that all essential elements of public transport are the same everywhere, no matter whether he rides bus and trains in Wilhelmshaven, Bremen or Munich. Finally, traffic signs don't differ from city to city.
Reliability	The customer must be able to rely on the bus/train coming. This criterion is important primarily in the rural room since the journey frequency is low in most cases (max. 1 hour time, rather 2 hour time up to single journeys on the day). In almost all cases there aren't any alternatives and waiting times of an hour and more are unacceptable for every customer. The confidence of the customer in the local public transport depends strongly on the reliability.
Timeliness / Punctuality	The journeys and departures should correspond to the schedule times. Particularly at changes delays are unpleasant for the customer and can provide problems in the personal time planning of the customers. It is no matter whether on the work way, at appointments or in the leisure time. The punctuality of the local public transport is also an important factor in connection with the reliability and with that for the image of the local public

¹ BMVBS (Hrsg.): ÖPNV: Planung für ältere Menschen. Ein Leitfaden für die Praxis. BMVBS-Online-Publikation 09/2010; Odenwald-Regional-Gesellschaft (OREG) mbH (Hrsg.): Qualitätsstandards für den ÖPNV; Website VCD: http://www.vcd.org/nahverkehr_anforderungen.html;

	transport.
Safety of connections	<p>Many passengers use several means of transportation for a way. They claim to have to reach their connections well and not to wait too long when changing. Reaching the connections is particularly important in combination with the punctuality since customer must experience unacceptable waiting times on the way, they lose the confidence fast and change to the car.</p> <p>Good opportunities for further means of transportation like Bike+Ride, Park+Ride and Kiss+Rail are also necessary since through this the availability of the local public transport is increased in rural areas.</p>
Customer informations	<p>A good information of passengers begins not only at the bus stop or at the sales counter. The future customers of carriers want to be picked up at the front door. All important information about the offer, like journey times, prices, services, etc., must be simple and fast (available/usable and user friendly) to get by phone or computer. Plans and lines of nearby stops should hang out in all public and major private organisations with public (offices, cinemas, hotels, restaurants, sports facilities). During the trip, passengers need to be informed about connecting opportunities, additional services (such as luggage service), and any errors.</p>
Customer services	<p>Modern low-floor buses and -trams, light units, and new trains provide good reputation and bring public transport new glory. The boarding and alighting is easier, especially for older people, people in wheelchairs, but also for parents with prams. Enough space for luggage and comfortable seats contribute to the well-being of clients. Customer friendly stops and stations are characterized by short distances, ground level access, an attractive environment, protection during bad weather conditions and the presence of other service facilities (shops, telephone, mailbox, etc.)</p>
Safety	<p>One aspect with a high importance from point of view of many passengers is subjectively perceived safety. Well-lit stops and transit routes, animated vehicles and stations, accessible personnel and offers, such as a taxi-call service or the option for requests to leave the bus between the stations contribute to feel safe customers in buses and trains.</p> <p>A second point of importance is the safety for elder people during rapid starting and braking, the time for getting into the vehicle and to back out and uncertainty with delays and missed connections.</p>
Short travel times	<p>A dense network of stations (proximity to bus stop), frequent departure times, fast interchanges at junctions, separate tracks for buses and trams with traffic light priority circuit as well as punctuality and reliability contribute to short 'door to door' travel times. Long waiting times and missing offers are not reasonable for the customer.</p>
Leisure and holiday traffic	<p>In the leisure and holiday traffic is still a great need for public transportation. For example, the arrival of guests in destinations can be facilitated by a pick up from the train station and free baggage up to the accommodation. Lending facility for bicycles, car rental and sports equipment and a good advice on existing plans already in travel planning can be an incentive for many people to leave their car at home. Provided of course, that many leisure destinations and regions better by public transport be developed as this often is still the case.</p>
Price / Costs of public traffic	<p>The rate system has to be simply handled and understood well. It should be laid out so that every passenger can itself determine the fare applying to him independently without problems. But not only comprehensibility is an</p>

	<p>essential criterion, the rate system should also be just to be accepted and used by the customer. Only a rate provided more understandably, with a price performance accepted by the passenger, is attractive. Furthermore the rate should be uniformly and be used by all transport companies involved so that easy changes to other lines are possible.</p> <p>To get new customers from their car into using public traffic it is important to have good and even more transparent prices and offers, which are comprehensible. Offers has to be comparable to the costs users would pay for a car, e.g. a monthly ticket for public traffic compared to the costs of a car.</p>
Local public transport network of routes	<p>The range of the local public transport network of routes in combination of the lines with each other as well as with other networks plays an important role. Important destinations for education, profession, supply and leisure time must be attainable, so that customers can be satisfied with their needed supply. In connection with this, the frequency of the offered journeys is important. Some basic and easily understandable information about network of routes and schedules is an essential requirement for the amplified use of the local public transport by the citizens.</p>

Summary

Basically and in first sight customers need information about public transport, the possibilities of public transport in their region and how to use it. These information have to be always available, usable, correct and user-friendly.

Customer needs of public transports in rural areas are mainly focused on connections that are easy to plan and to use with a reliable service from start to finish. In these relations the pricing has to be reasonable, the connections have to be safe with good connection points and enough time for changing the lines.

Additional the comfort and safeness of the buses and stops is important for the general opinion on public traffic. Being able to plan and perform daily activities like education, daily maintenance, medical care and leisure time autonomous is important.

2 Target Group Selection and User Persona Design

Target group for region VEJ

In the region VEJ there are identified at least four main target groups that represent the whole spectrum of customers in public transport. These target groups are adults between 20 and 60 years, elderly people and tourists.

The major customer group of public traffic in the region are the school-age children/pupils. A large group of pupils are allowed to go to school by bus by law, when they live outside of a defined radius to the school (depends on the several rural district). About 80% or more of all rides in the buses take place by this target group.

The predominant use of this group are the ways from their homes to school and the way back. In addition the school-age children are less mobile than other target groups, because they don't have a possibility to use a car (motor-driven vehicle) on their own. In this treatment this ground is not in the foreground, because a big challenge for the public transport system is to get other users into the system, who are not or just in parts involved yet.

The first considered target group in the region VEJ that partially depends on public traffic for their required mobility are the elderly people. This group is normally used to have a car to get everywhere and for the supply of necessary goods and services. The society in general is getting older, especially in the rural areas this trend is even intensified. The older these persons get, the more they are reliant on public traffic, because the ability of driving a car decreases with the physical health.

A lot of elderly people don't have (a lot) other people that can help with their supply. Children often have moved to other region for their education and jobs, more and more friends drop with increasing age. So in many cases public traffic is very important to secure mobility and supply of necessary goods and services for elderly people.

The second target group for the region are tourists. The whole region is an important tourist region because of the North Sea and its landscape. More and more, the uniqueness of the Wadden Sea as UNESCO's World Heritage is important for tourists. Green tourism for the most tourist is equal to vacation without a car. For this group public traffic is just as well necessary for their mobility for journeys in the region.

Next to these green tourists there are a lot more conventional tourists in the region. They normally use their cars for trips during their holidays, e.g from their flat at the coastline to a city in the midland. This group is also interesting to convince to use public traffic.

Each years there are about 2.6 million guests with about 21 million guest-nights in the whole area of VEJ, additional to this there are single-day guests. The bigger part of the tourists stays at the coastline and on the islands.

The third target group are the commuters, at least a large group of the residents. In rural areas the most ways are done by car. So there are several challenges to get public transport as an alternative in the mind of the residents and commuter. This only can work if the schedule and the fare system are attractive. This means also the time commuters need to get to work and back.

User persona(s) representing the target group for region VEJ

User Persona 1 – Elderly people



“I don't feel very comfortable driving by car on my own. Maybe I would take the bus sometimes, if the offer was available, when I need it and when it was clearer represented.”

Helga Janssen, 70 – Retiree

lives in Schortens

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|------------------|---|
| Bio | Helga lives in Grafschaft, a small district of Schortens near Wilhelmshaven. She used to be a housewife, took care for the house and garden, her children and her husband. She is physically fit. Since 10 years she has problems with her blood pressure, so she needs regularly medical care. |
| Family | Helga has married in 1963. Her husband bought a house in Grafschaft with a huge garden in 1969. In 1997 her husband died of an heart attack. She has four children, 3 daughters and one son. One of her daughters live in the USA, the youngest never left Friesland and the oldest one lives in Bremen. Her son lives in Frankfurt with his wife an his 6 years old twins. |
| Hobby | Helga likes to do daily trips with the local tour operator. Then she goes on trips to Hamburg, visiting a musical or to the flower market to Groningen or to the Meyer dockyard in Papenburg, watching the transfer of an new cruise liner. She likes visiting events in the community-center in Schortens-City. Sometimes she drives to the weekly market to meet friends and acquaintances from the senior sports group. In her free time she cares for her garden and home. Helga is member of the country women association. |
| Travel behavior: | Helga has a driver license, but she doesn't like to drive. As her husband was still alive, he needed the car mostly to go to work or for bigger shopping tours to Wilhelmshaven or Oldenburg. She never had the chance for collecting driving experiences and on her age she isn't interested in it anymore. Normally Helga does all her trips by bike or by feet, even if the weather is bad. To meetings with her country-women, she carools with two women from the neighborhood. She wouldn't go by bus because the evening offer doesn't fit to her social arrangements. |

User Persona 2 - Tourists



“I really need my car at home. There is no alternative, because I have to be flexible in my work times. On holidays I enjoy the possibility of not needing a car.”

Dietmar Kowalski, 38 – Engineer

lives in Schwerte

- Bio:** Dietmar lives in Schwerte, a small town in the east of the Ruhr Region. He works as engineer for the chemical industry. His whole family is rooted in the Ruhr Region.
- Family:** Dietmar lives with his wife Sandra and his son Jannik in a flat in a terraced housing estate. Dietmar's mother requires a high level of care so Dietmar and Sandra spend much time with his mother. Dietmars father is to old and frail to help his wife. Sandras parents are younger and fitter and sometimes they come to visit the young family.
- Hobby:** Dietmars loves soccer like his son Jannik. Sometimes they visit the Signal-Iduna Park in Dortmund for watching Bundesliga soccer games. The family like spending their holidays at the North Sea Coast in Schillig (rural district of Friesland). For them it is important to get distance from their daily routine. In the Holidays at the North-Sea, like like to go the most ways by bike or by feet. They want to use their car as less as possibility.
- Travel behavior:** At home Dietmar and Sandra haven both a car. Dietmar needs his car to go to work and for being flexible for his mother and his family. Sandra needs her car for bringing her son to the soccer club, for going to work or for shopping. In their free-time and their holidays they enjoy the fact, not needing a car. During the holidays Dietmar mostly take walks at his destination, like to the local bakery or a walk at the beach. For him, holidays are for taking things much more slowly, for relaxing. Sometimes they go on daily-trips to Wilhelmshaven or Jever on rainy days.

User persona 3 - Commuter



"I like to get around and to be active in my free time. Because I got no car, sometimes I miss a little helper for my connections"

Annika Peek, 26

lives in Sande

- | | |
|------------------|--|
| Bio | Annika lives in Sande, a small town near Wilhelmshaven. She works as a hairdresser in Varel which is 18 km from Sande and 3 km from the Jadebusen. She used to live in Schortens, but when she finished her apprenticeship and got a new job in Varel she moved in at her boyfriend. |
| Family | Annika lives with her boyfriend in a little flat. Her boyfriend is unemployed and needs her support. Annika has a brother in Schortens, who works as carpenter at a local enterprise. They have regular contact. Her parents don't like her boyfriend so they don't have much contact to each other. |
| Hobby | Annika made her hobby to her profession. In her free-time she helps her friends with their hair, especially for weddings or celebrations. Most of her time she spends with her boyfriend or her brother. Annika loves her dog, which is often with her, even if she is on the way. |
| Travel behavior: | Annika commutes between her place of abode and her place of work in Varel five days a week. Sometimes she has to work on Saturdays. For this she takes the train everyday to Varel. Having a car is too expensive for her, so she buys monthly season tickets. For visiting her brother she buys extra tickets, because the monthly pass is only valid for a special distance. That's why she often gets visitors. For short distances she takes the bike. But that's not possible when it rains or it's stormy because in her job it's important to look perfect. |

3 Transport Challenge

Transport challenges to address in the service innovation for region VEJ

Transport challenge for user persona 1 – Helga Janssen

The ways Helga Janssen covers are regularly in distances up to about 5 kilometers. She got to get her daily consumer needs, visit her doctor, go to the farmer's market and to her several activities in the evenings. Normally she takes her bike, only when it is really necessary she will use her car. Sometimes she thinks about to repeal her car. Otherwise she needs an alternative for the ways, she can't go by feet or bike.

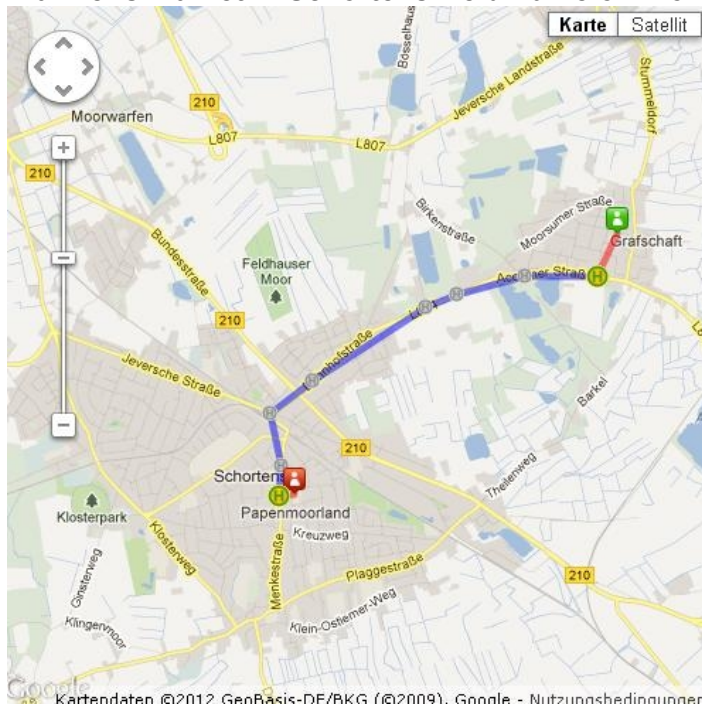
Helga Janssen doesn't really know how to use public transport as an alternative to be mobile. In her mind the buses are for the pupils. Neither she knows about the opportunities for her to get where she wants or needs to go nor how to get these information. In first she would need information about the timetable of specific buses, about the prices such as special offers (e.g. monthly season ticket for elderly people) and how to use the bus.

Summarized she needs to know

- how to use the public transport system in general
- how to plan her ways by bus (which trips are possible)
- how much to pay for single trips/monthly season tickets as an alternative to her car (simple information plus comparison)
- how to find the right stops and how to manage changes from one bus to another (or train)

Some destinations of Helga Janssen are

- **farmer's market in Schortens-Heidmühle on Mondays and Thursdays in the morning**

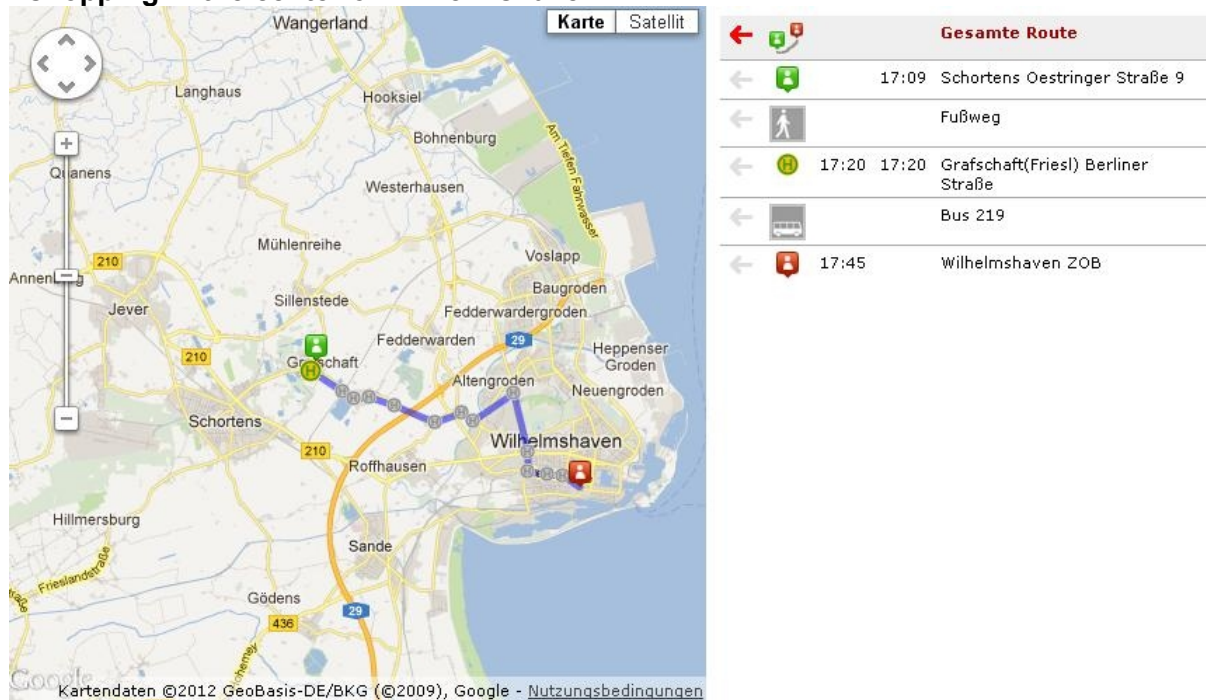


Gesamte Route			
←	08:47	Schortens Oestinger Straße 9	
←		Fußweg	
←	08:58	08:58	Graftschaft(Friesl) Berliner Straße
←		Bus 219	
←	09:05	09:05	Heidmühle(Schortens) Rheinstraße
←		Fußweg	
←	09:11	Schortens Weserstraße 1	

Bus: 24 minutes (inclusive ways to/from bus-stop)

Alternatives: Bike: about 22 minutes; Car: about 10 minutes + finding a parking-lot

- shopping in the center of Wilhelmshaven



Bus: 36 minutes (inclusive ways to/from bus-stop)

Alternatives: Car: about 20 minutes (needs to find a parking-lot); Train: about 35/45 minutes (inclusive 10 minutes by car/20 minutes by bike to the train station)

There are several bus stops with overall four different lines in the surrounding field of Helga Janssen's home. The line's 214, 215 and 220 just have single trips each day from Monday till Friday and serve as pupil transportation. The line 219 gives a good access to the center of Schortens and Jever as well as the center of Wilhelmshaven. Even in the evenings there are connections until 8 p.m. and one additional on at about 10.30 p.m. on demand in both directions. In Schortens there is a connection from the bus to the train with directions to Esens and the coast and on the other hand to Sande with change to the train with directions Oldenburg (Osnabrück and Bremen).

In general the offer of public transport gives Helga Janssen options to reach the most destinations for her. The main problem for her is to know about the offers, to be sure that she can do her trips reliable and safe and to get the public transport in her mind as a suitable alternative for her mobility.

For her it would be good, if there was someone, who would explain the functions of public transport system to her, to take the fear of using buses, to get the suited connections for her purposes and help her to see public transport as a real alternative. Helga Janssen is not experienced in computers and internet, so she needs help to get along with services. She is sceptic about the use of computers but is willing to learn more about it. Nevertheless she prefers information in the she can held it in her hands.

Transport challenge for user persona 2 – Dietmar Kowalski

The most Trips of Dietmar Kowalski and his family during their holidays are day-trips or at least half-day-trips, especially when the weather is not good or its raining. The most others ways, for example shopping, can be done by feet. Dietmar and his family like to make trips along the coastline with their bikes.

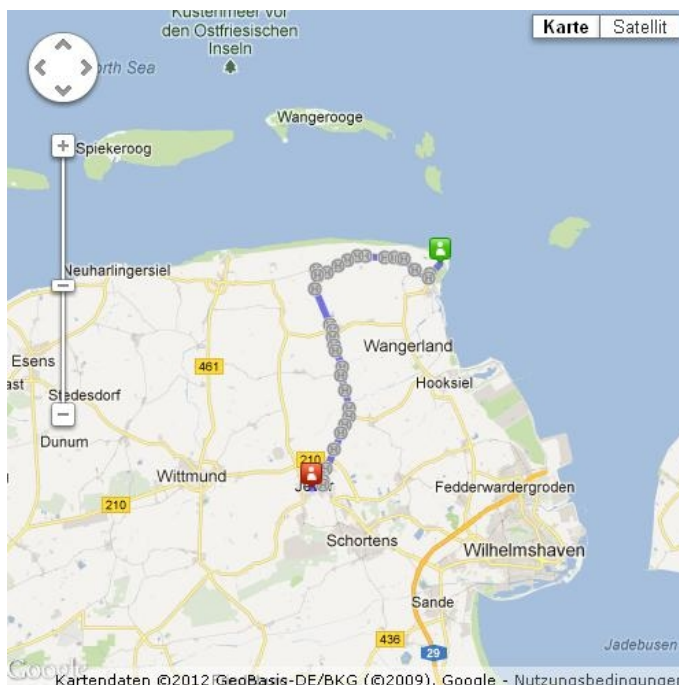
The longer trips, to Wilhelmshaven with the museums at the harbor or the historical city of Jever and the brewery, they normally go by car. The alternative for them would be the “Urlauberbus” (tourist-bus). All overnight guests in the whole region get a visitors-card (normally they got to pay visitor's tax). With this card they can take all buses in region for just 1,-€ for each trip and person. Information about this special offer all guests can get at their tourist information or internet. There is also a special network diagram with the main bus-lines for tourists. Until now, Dietmar did not realize this offer as an (cheap) alternative for their holidays. There are several special buses, that only drive during the holidays, when other school-buses don't drive.

Summarized Dietmar needs to know

- how to use the special offer “Urlauberbus” (that this is no special bus, but all line-buses, how to get the special ticket,...)
- which destinations he can get easily from his holiday home and back
- information when his bus for the way back will leave and alternative times, when he decides to stay longer

Destinations of Dietmar Kowalski are

- shopping and sightseeing in Jever



Gesamte Route		
←	11:35	Schillig Ort
←		Bus 227
←	12:15	Jever ZOB/Bahnhof

Bus: 40 minutes (plus approx. 5 minutes ways to/from bus-stop)

Alternatives: Car 30 minutes (needs to find a parking-lot)

- day-trip to the island Langeoog



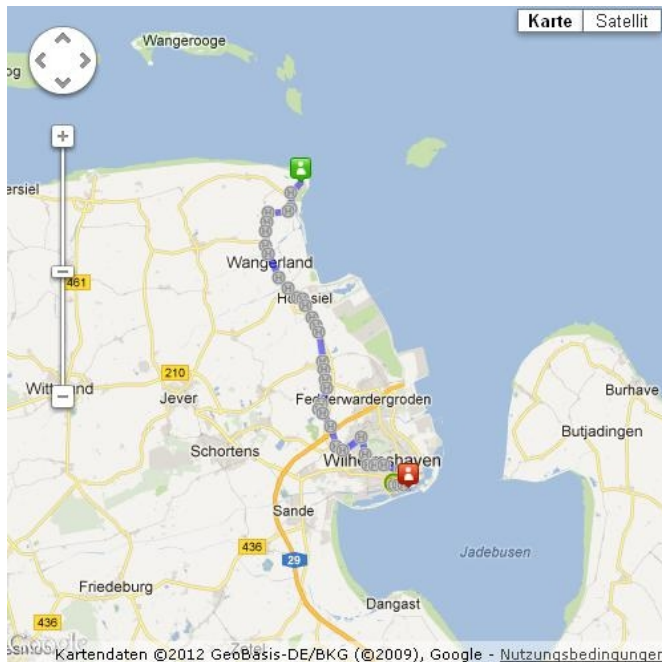
Gesamte Route		
←	09:00	Schillig Ort
←		Bus 227
←	09:23 10:10	Carolinensiel Feuerwehr
←		Bus K1
←	10:38	Bengersiel Anleger

Bus: 1 hour 38 minutes (1 change)

Alternative: Car: 35 minutes (needs to find a parking-lot)

from Bengersiel further on with a ferry.

- shopping and museum in Wilhelmshaven



Gesamte Route		
←	09:00	Schillig Ort
←		Bus 121
←	09:58 10:14	Wilhelmshaven ZOB
←		Bus 6
←	10:19	Wilhelmshaven Kaiser-Wilhelm-Brücke

Bus: 58 minutes to the center, 1 hour 19 minutes to the harbour with the museum (1 change).

Alternative: Car: 35 minutes/40 minutes

For the daily ways in his holidays Dietmar Kowalski don't need a car or bus, because these are in short distances. For trips in the region, for sightseeing, shopping, etc. there are many possibilities to use the bus. The most ways take more time than going by car, but with the cheap tickets and no stress during the trip and finding a parking lot for tourists the "Urlauberbus" is a good alternative for the mobility at the holiday destination. The most important information are the possible routes to take and alternative departures (via mobile) for the way back to be flexible.

Transport challenge for user persona 3 – Annika Peeks

Annika Peeks is a young and active person. She likes to be outside and to be mobile. Because she has no car, she often uses her bike, but for a lot of her ways she uses public transport because its too far to go by bike. In the morning and afternoon she gets to work by train normally. Since August 2011 the railway in between Sande and Oldenburg is closed, because there are construction works for a better transport connection, especially for the freight transportation from the new JadeWeserPort. So Annika has to change in Sande from the train to a bus of the rail replacement service. So for some time her way towards her work lasts longer than it does normally.

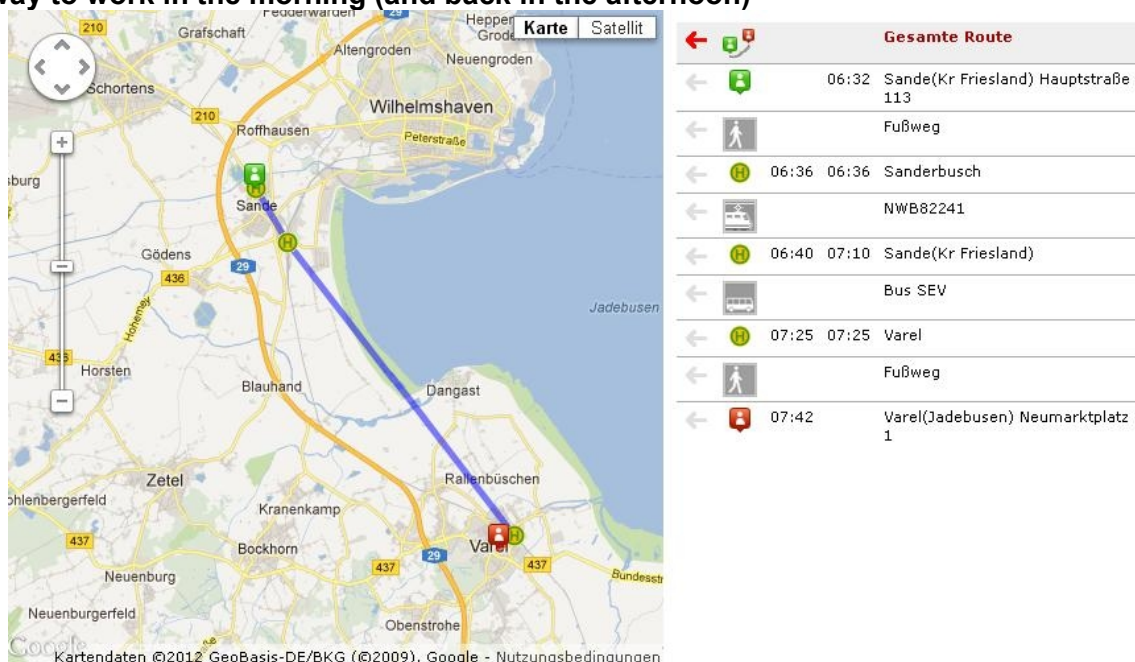
She often visits her Brother in Shortens or goes shopping or partying in Wilhelmshaven or Oldenburg. Sometimes she misses her train or bus, because she is not sure about the exact time or she just forgets about the time in general. Sometimes she has to take a taxi then. Annika buys every ticket as a single ticket, because there is no suited monthly season ticket for her or she doesn't knows if there is one.

Summarized Annika needs information

- about the possibilities of several tickets and her opportunities to buy a suited ticket.
- About departures (incl. delays) of bus/train and some kind of alarm for herself
- the best way to manage her day and trips with public transportation system

Destinations of Annika Peeks are

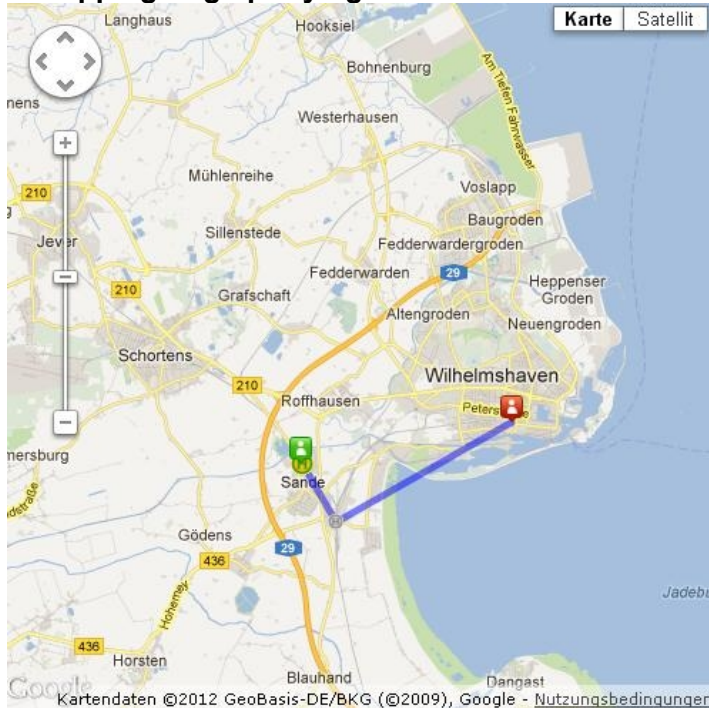
- way to work in the morning (and back in the afternoon)



Train and Bus (rail replacement service): 1 hour 10 minutes (inclusive ways to/from station)

Alternative: Car (if she had one): 20 minutes

- shopping or go partying in Wilhelmshaven

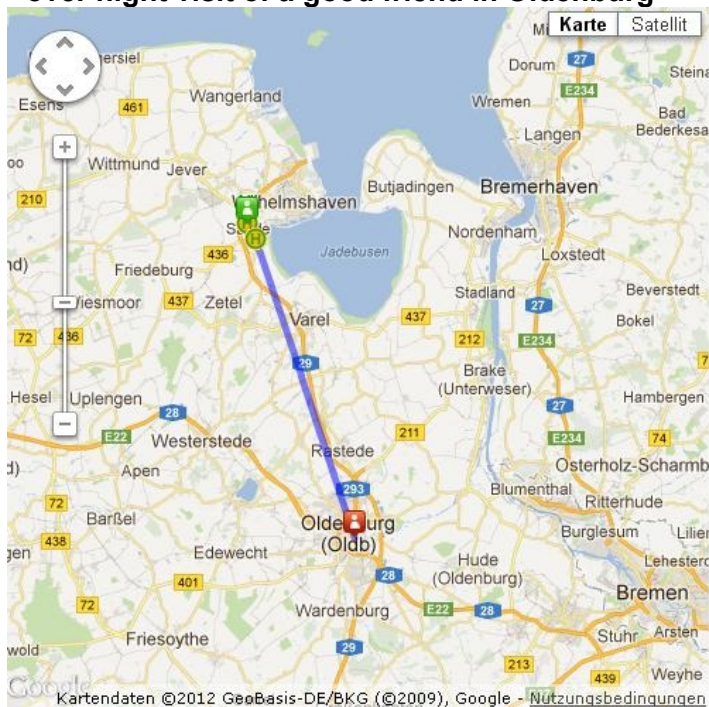


Gesamte Route		
12:32	Sande(Kr Friesland) Hauptstraße 113	
	Fußweg	
12:36	12:36	Sanderbusch
	NWB82253	
12:54	Wilhelmshaven Hbf	

Train: 22 minutes (inclusive ways to/from station)

Alternative: Car (if she had one): 15 minutes; Bike: 30 minutes

- over night visit of a good friend in Oldenburg



Gesamte Route		
19:32	Sande(Kr Friesland) Hauptstraße 113	
	Fußweg	
19:36	19:36	Sanderbusch
	NWB82267	
19:40	19:45	Sande(Kr Friesland)
	Bus SEV	
20:28	Oldenburg(Oldb)	

Train and Bus (rail replacement service): 56 minutes

Alternative: Car (if she had one): 37 minutes

Annika know good how to handle her ways with public transport. Sometimes she would like to have more or better information to have the best connections as much as the shortest and low priced options. Annika knows well to use the internet and her mobile phone, otherwise she does not like to ask for information on telephone or a counter that much. She would like to have some kind of navigation system to help her with her ways.

4 Regional Context

The region of Ems-Jade is located in Lower Saxony and borders in the South to the State of North Rhine-Westphalia, in the West to the Netherlands and to the East to the region of Oldenburg/Osnabrück. In the North, the North Sea forms a natural border. The region of VEJ has an area of 6.739 km² with about 960.000 inhabitants, that corresponds to a population density of approximately 142 inhabitants per square kilometer.

The whole region is very plain and parts are under sea level. The landscape is mainly affected by agriculture through fields and meadows. The region was dominated by farming and fishing such as particularly by trading in the few cities. This was particular the maritime trade in the port cities. Especially Diking has made possible the agricultural use of large parts of the march, which previously was affected by the tide.

Meanwhile, the tourism, especially on the islands and in many coastal towns and communities such as some industrial centers have gained high importance to the regional economy. Nevertheless, agriculture is still in a strong position – especially geographically and culturally. Despite economic progress in recent decades the region is considered as a structurally weak region, with a high dependence on a few industries and a small number of larger companies.

The biggest Cities in the Region are Wilhelmshaven with 81.000 inhabitants as a regional metropolis such as Emden and Lingen with about 50.000 inhabitants. The whole region is affected by a lot of small towns between 20.000 and 50.000 inhabitants as well as smaller communities. Especially along the coastline there are the old fishing villages with their havens, that are mainly frequented by tourism. The next bigger cities with a connection to the region are Oldenburg, Osnabrück and Groningen. The next metropolises are Bremen and eminently Hanover as the capital city of Lower Saxony.

Facts and indicators

Number of inhabitants VEJ (30.09.2011)

Aurich	Emden	Emsland	Friesland	Leer	Wilhelmshaven	Wittmund	VEJ
188.836	51.518	313.884	99.511	165.014	81.266	57.221	957.250

Source: Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen

Area VEJ (square kilometer)

	Aurich	Emden	Emsland	Friesland	Leer	Wilhelmshaven	Wittmund	VEJ
Land	1.287,3	112,4	2.882,0	607,9	1.086,0	106,9	656,7	6.739,1
Water	4,82	0,85	8,81	1,53	6,93	0,98	1,56	25,48²

Source: Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen

Major cities, based on number of inhabitants (31.09.2011)

1	Wilhelmshaven, Stadt	81266
2	Emden, Stadt	51518
3	Lingen (Ems), Stadt	51127
4	Aurich, Stadt	40451
5	Papenburg, Stadt	35278
6	Meppen, Stadt	34980
7	Leer (Ostfr.), Stadt	34271
8	Norden, Stadt	25062
9	Varel, Stadt	24626
10	Haren (Ems), Stadt	23037

Source: Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen

Large cities from neighboring regions within travelling distance

Oldenburg (population: 160.000)	Wilhelmshaven	55 Km
Osnabrück (population: 163.000)	Lingen	75 Km
Emmen/NL (population: 108.000)	Meppen	35 Km
Groningen/NL (population: 193.000)	Leer	73 Km
Bremen (population: 547.000)	Wilhelmshaven	100 Km
Hamburg (population: 1.800.000)	Wilhelmshaven	220 Km
Hannover (population: 519.000)	Wilhelmshaven	220 Km

Source: Google Maps

Population structure

Indicators	AUR	EMD	EL	FRI	LER	WTM	WHV	VEJ
Average age (years)	43,2	43,2	41,2	44,8	42,5	43,9	45,6	43,5
Average age 2030 (years)	49,2	47,5	46,7	50,1	48,1	49,7	49,4	48,7
Median age (years)	43,4	42,5	41,1	45,3	42,6	44,1	45,6	43,5
Median age 2030 (years)	52,8	49	48,5	53,8	50,6	53,3	51,9	51,4
Ration under 18 (%)	18,8	16,8	19,8	17,7	19,2	18,3	14	17,8
Ration under 18 2030 (%)	14,7	14,3	15,9	14,2	15,2	14,4	12,6	14,5
Ratio 65 – 79 (%)	15,3	14,7	13,2	17,6	14,8	15,8	18	15,6
Ratio 65 – 79 2030 (%)	22,6	19,7	19,6	22,6	21	22,3	21,6	21,3
Ratio over 80 (%)	5	5,6	4,3	5,5	4,7	5,4	6,3	5,3
Ratio over 80 2030 (%)	9,1	8,5	7,1	10,4	8,3	9,8	9,9	9,0
Ratio over 64 (%)	20,3	20,3	17,5	23,1	19,5	21,2	24,3	20,9
Ratio over 64 2030 (%)	31,7	28,2	26,7	33,0	29,3	32,1	31,5	30,4

Source: Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen

2 Without the areas of the Northsea

Economic structure – Employment in...

NUTS	Subarea	...Agriculture, etc.	...Manufacturing	...Service sector
1	Lower Saxony	3,27%	23,74%	72,99%
3	Emden	0,57%	40,70%	58,74%
3	Wilhelmshaven	0,83%	14,97%	84,20%
3	Aurich	5,16%	18,84%	76,00%
3	Emsland	4,95%	32,38%	62,67%
3	Friesland	4,05%	19,16%	76,79%
3	Leer	4,80%	17,78%	77,42%
3	Wittmund	7,40%	16,93%	75,66%
	VEJ	4,24%	24,82%	70,94%

Source: Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen

GDP per household (in EUR)

	1995	2000	2005	2009
Lower Saxony	42.776	46.691	49.363	53.143
Emden	66.867	80.554	79.498	78.081
Wilhelmshaven	66.327	71.881	61.092	69.160
Aurich	30.305	31.384	33.463	38.707
Emsland	41.189	48.438	52.491	56.801
Friesland	37.200	41.894	38.391	40.161
Leer	31.837	33.213	37.768	43.797
Wittmund	34.749	35.114	35.930	39.511
VEJ	40.628	44.832	45.906	50.401

Source: Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen

Unemployment percentage

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Germany	9,4	9,8	10,5	10,5	11,7	12,0	10,1	7,8	8,1	7,7	7,1
Lower Saxony	9,1	9,2	9,6	9,6	11,6	10,5	8,9	7,7	7,8	7,5	6,9
Emden	11,8	12,1	12,8	13,0	14,4	13,7	11,2	9,6	10,4	10,3	9,8
Wilhelmshaven	12,6	13,0	13,6	13,7	18,5	15,2	13,2	12,1	12,7	12,8	12,8
Aurich	11,2	10,9	11,5	11,8	12,8	12,6	10,8	8,8	8,9	8,2	7,8
Emsland	7,9	7,8	8,1	8,1	9,0	7,6	5,9	5,0	4,7	4,4	3,7
Friesland	9,7	9,9	10,4	10,3	12,2	10,8	8,6	7,6	7,3	6,4	6,4
Leer	10,6	10,8	12,2	11,8	13,9	12,2	9,0	8,5	8,5	8,1	7,4
Wittmund	10,4	10,7	11,2	11,3	13,2	12,1	10,1	8,5	8,2	7,9	7,1
VEJ	10,0	10,0	10,6	10,6	12,2	12,0	9,8	8,6	8,7	8,3	7,9

Source: Bundesagentur für Arbeit

Education

school leaver 2010	AUR	EMD	EL	FRI	LER	WTM	WHV	VEJ
special school – total (%)	3,6	1,3	1,7	1,8	3,2	1,7	2,6	2,3
No graduation – total (%)	3,4	1,7	1,6	2,5	2,2	1,4	2,8	2,2
Certificate of Secondary Education – total (%)	15,6	10,9	12,6	14,6	18,6	18,2	11,1	14,5
General Certificate of Secondary Education – total (%)	50,1	46,1	44,4	48,7	46,1	50	47,1	47,5
higher education entrance qualification - total (%)	27,3	39,9	39,6	32,4	29,8	28,6	36,3	33,4

Source: Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen

ICT adoption

Private usage of Internet by persons in % (2011) in Germany

Age	every day or almost every day	min. once a week	min. once a month or less
total	76	18	6
10 to 15	61	30	9
16 to 24	89	10	1
25 to 44	82	14	4
45 to 64	71	21	9
65 and older	60	28	12

Source: Statistisches Bundesamt

Internet access in Germany

Households with Internet access	77,0%
→ Internet access: broad band	93,0 %
→ Internet access: DSL connection	82,0%

Source: Statistisches Bundesamt

Price of broadband internet (10.0 MB p/S) connection per month, in EUR

16.0 MB p/S average price among 20,- to 30,- € (normally incl. telephone flat-rate)

Transport sector situation

Market situation in public transport

Traffic (Persons) in Germany (Transportation service in milliard passenger kilometres)

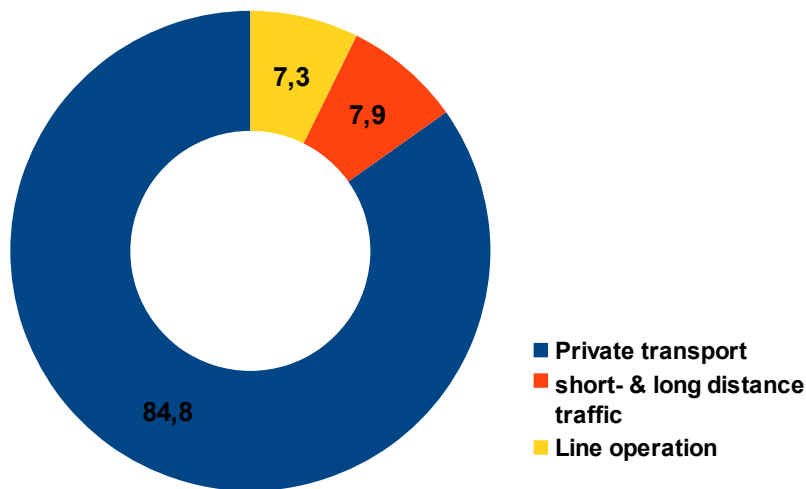
Type of traffic	2009	2010	variation
railway service	82,2	84,0	+ 2,2 %
1	78,9	77,5	-1,8 %
line operation			
individual motor car	904,4	904,6	+0,0 %
traffic			
total	1065,5	1066,1	+0,1%

Source: Deutsches Institut für Wirtschaftsforschung 2011, Intraplan/BMVBS 2011, VDB 2011

1

Abgrenzung nach Personenbeförderungsgesetz in Linienverkehr (private und kommunale Busse, Straßenbahnen und U-Bahnen) und Gelegenheitsverkehr (Reisebusse);

Modal Split of traffic in Germany



Source: Deutsches Institut für Wirtschaftsforschung 2011, Intraplan/BMVBS 2011, VDB 2011

1

Abgrenzung nach Personenbeförderungsgesetz in Linienverkehr (private und kommunale Busse, Straßenbahnen und U-Bahnen) und Gelegenheitsverkehr (Reisebusse); eigene Darstellung

Car ownership in the VEJ

NUTS	Subarea	2010	Cars/1000 inhabitants
1	Lower Saxony	4.110.328	518
3	Emden	20.696	403
3	Wilhelmshaven	36.184	445
3	Aurich	96.676	511
3	Emsland	163.717	522
3	Friesland	56.001	560
3	Leer	84.855	515
3	Wittmund	30.646	534
	VEJ	488.775	510

Source: Statistisches Bundesamt

List of expected reforms in the region

Revision of funds for public traffic	It is currently calculated by experts, to what extent the distribution of regionalization funds between countries reflects demand. A decision is not expected to be in the near future. This uncertainty of funding for public transport after 2014 represents a barrier to new investment, as is unpredictable, as the availability of funds in the future looks like.
Amendment PBefG	The amendment to the Passenger Transport Act (PBefG) is to remain. There were some points agreements between the parties. Other points are still not clear. Particular uncertainties associated with the Passenger Transport Act of EC Regulation 1370/2007 provide for uncertainty in both the mission makers and transport operators.

Jade- Weser-Port

Germany's only deep-water port has been opened. It can be expected multilayered effects. It will create opportunities for the labor market in the region, inflows lead to an impact on the housing market as well as in the transport sector. A higher commuting to the port and associated industrial zones is to be expected. At the same time the volume of traffic will increase, both on the track and on the roads in the region through transport of goods.

Unesco World Heritage Wadden Sea

The National Park Wadden Sea is also Unesco World Heritage Site since 2009. There are expected to remain increased tourist numbers, which also pay attention to a car-free or low-car holiday. Since many of these guests arriving by train, you need local opportunities to be mobile. Related to this is the 'Urlauberbus' which won along with the Wadden Sea National Park Lower Saxony Wadden Sea the Destination Nature Award 2012.

Demograp hic change – less young and more elderly people

Demographic change and its consequences determine the discussion about a change in public transport, especially in rural areas. It's not only the increase of older people but the less of younger.

On the one hand, depopulation causes a decrease in demand of public transport, on the other hand the aging of the population brings about an increase in the need for public transport. Elderly people do have different requirements to public transport than younger ones. In rural areas like East-Frisia, school transportation service is paid by the administrative district. And school transportation define about 80 percent or more of all public transportation in this area.

Overall the amount of schoolchildren to be transported will become much less. For bus tour operators this is more than a worse case scenario, because most of their income is fixed through school transport service. On the other hand there will be more older people with different requirements on a public transport system. Greenfield development, removal of medical specialists and the dying of corner shops shows the importance of mobility in daily routine. Especially elderly people depend on a good medical care, short distances and shopping facilities in their environment. A high quality close meshed bus network is essential for old and sick people without a driving license or car, including those people, who are not able to drive a car on their own.